

[4910-13-P]

#### DEPARTMENT OF TRANSPORTATION

**Federal Aviation Administration** 

**14 CFR Part 39** 

[Docket No. FAA-2017-1105; Product Identifier 2017-SW-023-AD; Amendment 39-

19803; AD 2019-23-09]

RIN 2120-AA64

Airworthiness Directives; Bell Helicopter Textron Canada Limited Helicopters

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for Bell Helicopter Textron Canada Limited (BHTC) Model 427 helicopters. This AD requires inspecting the inboard skin of the vertical fin around the four tailboom attachment points. This AD was prompted by reports of cracked vertical fin skins that resulted from metal fatigue. The actions of this AD are intended to prevent an unsafe condition on these products.

**DATES:** This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain document listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** For service information identified in this final rule, contact Bell Helicopter Textron Canada Limited, 12,800 Rue de l'Avenir, Mirabel, Quebec J7J1R4;

telephone 450-437-2862 or 800-363-8023; fax 450-433-0272; or at https://www.bellcustomer.com. You may review the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177. It is also available on the Internet at https://www.regulations.gov by searching for and locating Docket No. FAA-2017-1105.

## **Examining the AD Docket**

You may examine the AD docket on the Internet at https://www.regulations.gov by searching for and locating Docket No. FAA-2017-1105; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the Transport Canada AD, any service information that is incorporated by reference, the economic evaluation, any comments received, and other information. The street address for Docket Operations is listed above. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** Matt Fuller, Senior Aviation Safety Engineer, Safety Management Section, Rotorcraft Standards Branch, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone 817-222-5110; email matthew.fuller@faa.gov.

#### SUPPLEMENTARY INFORMATION:

#### **Discussion**

On June 1, 2018, at 83 FR 25408, the Federal Register published the FAA's notice of proposed rulemaking (NPRM), which proposed to amend 14 CFR part 39 by adding an AD that would apply to BHTC Model 427 helicopters with a vertical fin part number (P/N) 427-035-840-105 or P/N 427-035-840-109 installed. The NPRM proposed

to require inspecting the inboard skin of the vertical fin around the four tailboom attachment points. The proposed requirements were intended to detect a crack on the vertical fin skin. This condition could lead to structural failure of the fin, separation of the skin from the helicopter, damage to the main or tail rotor blades and loss of helicopter control.

The NPRM was prompted by Canadian AD No. CF-2017-03, dated January 31, 2017 (Transport Canada AD CF-2017-03), issued by Transport Canada, which is the aviation authority for Canada, to correct an unsafe condition for BHTC Model 427 helicopters with vertical fin P/N 427-035-840-105 or P/N 427-035-840-109 installed. Transport Canada advises of three reports of cracked vertical fin skins that resulted from metal fatigue. If not detected, the crack may grow to a critical length, causing the fin to fail, separate from the helicopter, and damage the main or tail rotor blades, leading to their in-flight failure. Loss of the fin may also adversely affect the helicopter's directional stability, leading to loss of directional control, Transport Canada advises.

Transport Canada consequently requires repetitively inspecting the vertical fins for a crack, and if a crack is detected, replacing the fin before further flight.

### **Comments**

After the NPRM was published, the FAA received comments from one commenter. However, the comment addressed neither the proposed actions nor the determination of the cost to the public. Therefore, the FAA has made no changes to this AD.

#### **FAA's Determination**

These helicopters have been approved by the aviation authority of Canada and are approved for operation in the United States. Pursuant to the FAA's bilateral agreement with Canada, Transport Canada, its technical representative, has notified the FAA about the unsafe condition described in the Transport Canada AD. The FAA is issuing this AD after evaluating all known relevant information and determined that an unsafe condition exists and is likely to exist or develop on other helicopters of these same type designs and that air safety and the public interest require adopting the AD requirements as proposed.

### **Related Service Information Under 1 CFR part 51**

The FAA reviewed Bell Helicopter Alert Service Bulletin 427-15-38, Revision A, dated November 14, 2016, which specifies repetitive inspections of the vertical fins every 100 hours time-in-service (TIS) once the vertical fin has accumulated 1,500 hours TIS. This inspection also was incorporated in Chapter 4 of the maintenance manual. This service information also specifies serial numbers are to be assigned to vertical fins that do not have a serial number.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

## **Costs of Compliance**

The FAA estimates that this AD affects 27 helicopters of U.S. Registry. The FAA estimates that operators may incur the following costs in order to comply with this AD. Labor costs are estimated at \$85 per work-hour.

- Performing the visual inspection requires about 2.25 work-hours for an estimated cost of \$191 per helicopter and \$5,157 for the U.S. fleet.
- Replacing the fin requires about 4 work-hours, and parts cost about \$10,000, for an estimated cost of \$10,340 per helicopter.
- Assigning a serial number to the fin takes about 0.5 work-hours for an estimated cost of \$43 per helicopter.

## **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on helicopters identified in this rulemaking action.

# **Regulatory Findings**

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

The FAA prepared an economic evaluation of the estimated costs to comply with this AD and placed it in the AD docket.

## List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

# **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

## § 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

2019-23-09 **Bell Helicopter Textron Canada Limited:** Amendment 39-19803; Docket No. FAA-2017-1105; Product Identifier 2017-SW-023-AD.

### (a) Applicability

This AD applies to Bell Helicopter Textron Canada Limited Model 427 helicopters with a vertical fin part number (P/N) 427-035-840-105 or P/N 427-035-840-109 installed, certificated in any category.

### (b) Unsafe Condition

This AD defines the unsafe condition as a crack on the vertical fin skin. This condition could lead to structural failure of the fin, separation of the skin from the helicopter, damage to the main or tail rotor blades and loss of helicopter control.

### (c) Effective Date

This AD becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

## (d) Compliance

You are responsible for performing each action required by this AD within the specified compliance time unless it has already been accomplished prior to that time.

## (e) Required Actions

Within 25 hours time-in-service (TIS) or before the helicopter has accumulated 1,500 hours TIS, whichever occurs later, and thereafter at intervals not to exceed 100 hours TIS:

- (1) Remove the vertical fin and clean the vertical fin attachment area with a soap solution to remove all traces of dirt, stains, exhaust residue, and oil. Rinse the area with water and let dry.
- (i) Using a 10X power magnifying glass, visually inspect the inboard skin of the vertical fin for a crack around the four tailboom attachment points as depicted in Figure 1

of Bell Helicopter Alert Service Bulletin 427-15-38, Revision A, dated November 14, 2016. Pay particular attention to the upper aft attachment point.

- (ii) If there is a crack, replace the vertical fin before further flight.
- (2) If the vertical fin does not have a serial number, assign a serial number using the helicopter serial number, and permanently mark the new serial number on the vertical fin data plate. Create a component history card or equivalent record and annotate the serial number.

## (f) Alternative Methods of Compliance (AMOCs)

- (1) The Manager, Safety Management Section, Rotorcraft Standards Branch, FAA, may approve AMOCs for this AD. Send your proposal to: Matt Fuller, Senior Aviation Safety Engineer, Safety Management Section, Rotorcraft Standards Branch, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone 817-222-5110; email 9-ASW-FTW-AMOC-Requests@faa.gov.
- (2) For operations conducted under a 14 CFR part 119 operating certificate or under 14 CFR part 91, subpart K, the FAA suggests you notify your principal inspector, or lacking a principal inspector, the manager of the local flight standards district office or certificate holding district office, before operating any aircraft complying with this AD through an AMOC.

# (g) Additional Information

The subject of this AD is addressed in Transport Canada AD No. CF-2017-03, dated January 31, 2017. You may view the Transport Canada AD on the Internet at https://www.regulations.gov in Docket No. FAA-2017-1105.

# (h) Subject

Joint Aircraft Service Component (JASC) Code: 55, Empennage Structure.

## (i) Material Incorporated by Reference

- (1) The Director of the Federal Register approved the incorporation by reference of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.
- (2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.
- (i) Bell Helicopter Alert Service Bulletin 427-15-38, Revision A, dated November 14, 2016.
  - (ii) [Reserved]
- (3) For Bell Helicopter Textron Canada Limited service information identified in this AD, contact Bell Helicopter Textron Canada Limited, 12,800 Rue de l'Avenir, Mirabel, Quebec J7J1R4; telephone 450-437-2862 or 800-363-8023; fax 450-433-0272; or at https://www.bellcustomer.com.
- (4) You may view this service information at FAA, Office of the RegionalCounsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX76177. For information on the availability of this material at the FAA, call 817-222-5110.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email fedreg.legal@nara.gov, or go to: https://www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued in Fort Worth, Texas, on November 19, 2019.

Lance T. Gant,

Director, Compliance & Airworthiness Division,
Aircraft Certification Service.

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